



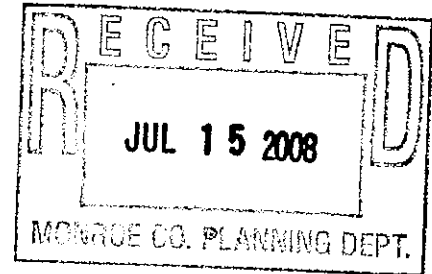
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Office of Fire Marshal  
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305-289-6010/305-289-6103 Fax

July 14, 2008

BJ Alan Company  
Arthur Enzig, RA  
555 Martin Luther King Jr. Blvd.  
Youngstown, OH, 44502-1102



RE: Phantom Fireworks Fire and Life Safety Plans

Dear Mr. Enzig,

The following are some of the corrections needed to the plans submitted for initial review of the Phantom Fireworks expansion.

Please note my review is not complete at this time. The problem is that you submitted basic boiler plate plans. Typically when the Fire Marshal's Office reviews plans for a project of this type, high hazard occupancy, it is only after a Fire Protection Engineer has professionally prepared the project. For the Fire Marshal's Office to itemize each and every deficiency on the plan that you submitted would be inappropriate, they are too numerous to list.

The Entrance/Exit turning radius from the rear is insufficient, as is the turn from the front parking lot to the "turnaround" on the North (right) side of the building, which now does not go all the way around. There is no vehicular access from about halfway back on the North (right) side of the building, ALL across the back. This means that the fire lane to that side of the building exceeds 150 feet to a dead end, and shall not be permitted, as a 50 foot diameter turnaround is sufficient to turn the ladder truck around in.

No fire lane markings or plan to keep fire lanes open are shown. There are about 50 details of a handicapped parking sign, but no detail on signage required by FFPC 1.18.2.2.5.7, 1.18.2.2.5.8, and Monroe County Code.

Obviously there is a fire flow issue, and a second hydrant shall be required on the front of the building in accordance with FFPC 1.18.3.1 and 1.18.3.2. There are no hydraulic calculations provided, and the sprinkler system specified on the plans is not of the proper type for the requirements of the building. There is no detail for the Backflow preventer.

Under Demo notes on Sheet A-1.00, there are multiple references to removing the Fire Alarm and Fire Suppression system, and saving the components for re-use. (In light of the fact that the system is insufficient

for what they have now, I don't see how they plan to re use anything. There is no plan to keep the system operable or alternatives during demolition and renovation.

Fire Alarm and Fire Suppression Shop drawings, including hydraulic calculations based on the AHJ's requirement of sprinkler density and hazard shall be submitted prior to any plan review. It is likely that with a 0.6 Sprinkler Density (which the AHJ will require), and the limited water supply available, that a fire pump and storage tank shall probably need to be provided. Of course, that determination cannot be made due to the lack of hydraulic calculations or specifications of the proper sprinkler protection. The sprinkler plans and Fire Alarm plans are generic, cut and paste specifications, and contain many errors as written. They assume the wrong Hazard Class, and are not taking into account the fact we are going to require ESFR type sprinklers. They also split the occupancy into two hazard classes, and per FFPC 101.6.2.1.3 where different degrees of hazard of contents exist in different parts of the building or structure, the most hazardous shall govern the classification, unless ... separated or protected in 101.8.7. They are not separated per this section so the entire occupancy shall be classified as high hazard. This also contradicts a statement on another sheet that calls the whole building ordinary hazard.

There are contradictions in the use of codes all throughout the plans. One place they are quoting a 2003 edition, then a 2006 edition (which is not yet adopted in the FFPC).

There is a UL wall detail for one "typical" fire wall, but not referenced where that specification is to be used in the building. Likewise there is a cut sheet detail for one Fire penetration, but I cannot believe that is the only penetration they will have. It is a requirement of the AHJ that one single type of fire stopping product be used throughout the building, and all fire stopping to be complete by a single, factory trained contractor. All prescriptive methods shall be available for inspection, and all penetrations are to be labeled with the UL or FM assembly listing used.

Smoke Relief vent detail is not on the page it is referred to in the plans. Also, the manual release is shown to be hanging 11 feet AFF.

Sheet "C" for general specifications actually states that the Fire Protection plans are not specific to the building. There is some reference to a mechanical smoke *control* system, but no details or specifications.

Fire Protection Page FP -1.02 referenced on the front page index is not in the plans.

This project meets the definitions in FFPC 101.36.1 for classification as a "new Mercantile" occupancy. This is a Class B per FFPC 101.36.1.4.2.1(2).

FFPC 101.6.2.2.4 classifies this as high hazard occupancy.

The interior finish schedule classifies all interior finishes as a class "C", however, FFPC 101.36.3.3.2 states that Interior wall and ceiling finish materials shall be class "A" or "B", and even though FFPC 101.10.2.8.1 allows the reduction of a Class where the building is sprinkled, the individual occupancy Chapters take precedence of the general Chapters, therefore all interior Finishes Shall be of Class "A" or "B".

There is no mention of postings of emergency plans, and according to 101.36.4.5.6.1 there shall be a written emergency plan and 36.7 requires employee training (although this is not a part of the building. it is still required)

Bathrooms are not shown to have emergency lights or horn/strobes.

No remote annunciation panel is shown on the plans; one shall be installed on the outside of the building.

HVAC smoke detectors have a lot of contradictory language throughout the plans. Some places it states it is the HVAC contractor's duty, others state it is for the alarm installer.

There is a mention of a one hour ceiling assembly, but no construction details or UL/FM approval for the assembly, nor specifics of the assembly's location (I assume above the showroom).

There is no riser detail provided.

Alarm shall monitor water flow (per NFPA 1124) not shown on plans

Backflow preventer location not specified on the plans.

If you have any questions or require further information please do not hesitate to contact my office at 305-289-6010.

Sincerely,



Arthur "Wally" Romero  
Assistant Fire Marshal Monroe County Fire Rescue

cc: Pete Bachelor, Hershoff, Lupino & Yagel  
Chief Sergio Garcia, Key Largo Volunteer Fire District  
Dan Gargas, Assistant Building Official Monroe County  
Joe Haberman, Planner Monroe County